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(54) Integrated optical mode converter

(57) Integrated optical mode converter provided with a channel-shaped waveguide comprising a periodic concatenation of two wave-guiding subsections (P) and (Q) defined by a strip-shaped structure supported by a substrate. The waveguide profiles of the subsections (P) and (Q) are defined by two different partial strips, of which at least one is, but preferably both are, provided with a slot (S_P, S_Q) running in a longitudinal direction of the partial strip in question. The slots have been applied in such a manner that only the field distribution of one of the two guided modes involved in the mode conversion is affected. Purpose: increased conversion per interface; and lower attenuation in specific embodiments.

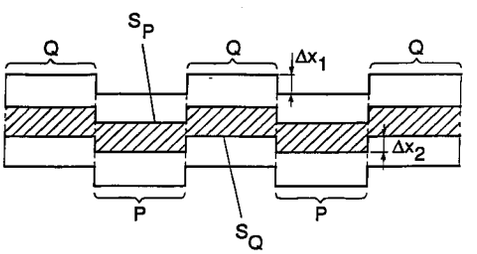


FIG. 8(1)

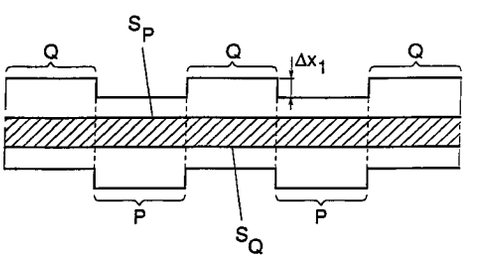


FIG. 8(2)

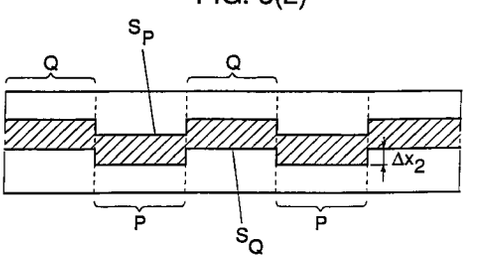


FIG. 8(3)

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EUROPEAN SEARCH REPORT

Application Number
EP 96 20 1547

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US-A-5 243 669 (ALFERNESS RODNEY C ET AL) 7 September 1993 * the whole document * ---	1,13,17	G02B6/14 G02B6/122 G02B6/136
A	IEEE PHOTONICS TECHNOLOGY LETTERS, vol. 7, no. 1, 1 January 1995, pages 32-34, XP000488115 TOL VAN DER J J G M ET AL: "A NEW SHORT AND LOW-LOSS PASSIVE POLARIZATION CONVERTER ON INP" ---	1,7,13, 17	
A,D	EP-A-0 513 919 (NEDERLAND PTT) 19 November 1992 * page 4, line 23 - line 58 * * page 5 - page 7 * * page 8, line 1 - line 14 * * figures 1,2 * ---	1,4,12, 13,17	
A,D	EP-A-0 645 650 (NEDERLAND PTT) 29 March 1995 * page 4, line 56 - line 58 * * page 5, line 1 - line 58 * * page 6, line 1 - line 37 * * page 10, line 15 - line 58 * * page 11, line 1 - line 58 * * page 12, line 1 - line 31 * * figures * -----	1,4,7, 13,17	TECHNICAL FIELDS SEARCHED (Int.Cl.6) G02B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	30 October 1996	Mathyssek, K

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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